

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Withdrawn) A method for enhancing hair growth in a subject, comprising exposing a target area of skin of a subject to the composition of claim 19.

2. (Canceled)

3. (Withdrawn and Currently Amended) The method of claim 1-claim 2, wherein the variant of the fragment that enhances hair growth in the subject contains one or more amino acid deletions or substitutions outside of the actin-binding motif.

4. (Canceled)

5. (Withdrawn and Currently Amended) The method of claim 1-claim 2, wherein the target area of skin is exposed to the composition of claim 25 fragment or variant of the fragment of thymosin β_4 comprises amino acid residues 17-23 or 17-22 of SEQ ID NO: 1, and wherein the fragment or variant of the fragment includes 0 to 5 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

6. (Canceled)

7. (Withdrawn and Currently Amended) The method of claim 5, wherein the target area of skin is exposed to the composition of claim 26 fragment of variant of the fragment includes 0 to 4 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

8. (Withdrawn and Currently Amended) The method of claim 5, wherein the target area of skin is exposed to the composition of claim 27 fragment of variant of the fragment includes 0 to 3 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

9. (Withdrawn and Currently Amended) The method of claim 5, wherein the ~~target area of skin is exposed to the composition of claim 28~~ fragment or variant of the fragment of thymosin β_4 is no more than 7 amino acid residues in length, and wherein the fragment or variant of the fragment includes 0 to 2 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

10. (Withdrawn) The method of claim 9, wherein the target area of skin is exposed to a composition comprising amino acid residues 17-22 of SEQ ID NO: 1.

11. (Withdrawn and Currently Amended) The method of claim 1 ~~claim 2~~, wherein the polypeptide consists of the fragment of thymosin β_4 , or a variant of the fragment, that enhances hair growth in the subject.

12. (Withdrawn) The method of claim 9, wherein the target area of skin is exposed to a polypeptide consisting of amino acid residues 17-23 of SEQ ID NO: 1.

13. (Withdrawn) The method of claim 9, wherein the target area of skin is exposed to a polypeptide consisting of amino acid residues 17-22 of SEQ ID NO: 1.

14. (Withdrawn) The method of claim 1, wherein the polypeptide is applied topically to an area of alopecia affected skin.

15. (Withdrawn) The method of claim 14, wherein the area of alopecia affected skin is a scalp of the subject.

16. (Canceled)

17. (Withdrawn) The method of claim 1, wherein the subject is a human.

18. (Withdrawn) The method of claim 1, wherein the subject is a non-human animal.

19. (Currently Amended) A composition for promoting hair growth in a subject, wherein the composition comprises:

a polypeptide of no more than 10 amino acid residues in length comprising an actin-binding peptide, wherein the polypeptide comprises a fragment of thymosin β_4 , or a variant of the fragment that enhances hair growth in the subject.

20. (Original) The composition of claim 19, further comprising a pharmaceutically suitable carrier.

21. (Original) The composition of claim 20, wherein the pharmaceutically suitable carrier is a topical pharmaceutical preparation.

22. (Original) The composition of claim 20, wherein the pharmaceutically suitable carrier comprises a hydrogel.

23-24. (Canceled)

25. (Currently Amended) The composition of claim 19-claim 23, wherein the fragment or variant of the fragment of thymosin β_4 comprises amino acid residues 17-23 or 17-22 of SEQ ID NO: 1, and wherein the fragment or variant of the fragment includes 0 to 5 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

26. (Currently Amended) The composition of claim 25, wherein the fragment or variant of the fragment includes 0 to 4 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

27. (Currently Amended) The composition of claim 25, wherein the fragment or variant of the fragment includes 0 to 3 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

28. (Currently Amended) The composition of claim 25, wherein the fragment or variant of the fragment of thymosin β_4 is no more than 7 amino acid residues in length, and wherein the fragment or variant of the fragment includes 0 to 2 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

29. (Currently Amended) The composition of claim 25, wherein the fragment or variant of the fragment of thymosin β_4 is no more than 6 amino acid residues in length, and wherein the fragment or variant of the fragment includes 0 to 2 conservative amino acid substitutions in comparison to SEQ ID NO: 1.

30. (Original) The composition of claim 25, wherein the fragment of thymosin β_4 consists of amino acid residues 17-23 of SEQ ID NO: 1.

31. (Original) The composition of claim 25, wherein the fragment of thymosin β_4 consists of amino acid residues 17-22 of SEQ ID NO: 1.

32. (Canceled)

33. (Previously Presented) A composition for promoting hair growth, wherein the composition comprises:

- (a) a polypeptide consisting of amino acids 1-26 of SEQ ID NO: 1;
- (b) a polypeptide consisting of amino acids 13-23 of SEQ ID NO: 1;
- (c) a polypeptide consisting of amino acids 7-43 of SEQ ID NO: 1;
- (d) a polypeptide consisting of amino acids 13-43 of SEQ ID NO: 1;
- (e) a polypeptide consisting of amino acids 10-28 of SEQ ID NO: 1;
- (e) a polypeptide consisting of amino acids 20-43 of SEQ ID NO: 1; or
- (f) a polypeptide consisting of amino acids 19-26 of SEQ ID NO: 1.

34. (New) The composition of claim 33, further comprising a pharmaceutically suitable carrier.

35. (New) The composition of claim 34, wherein the pharmaceutically suitable carrier is a topical pharmaceutical preparation.

36. (New) The composition of claim 34, wherein the pharmaceutically suitable carrier comprises a hydrogel.